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By: Howe, Carol
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Topic: Resend of my earlier commen
Sent: 04-18-97
From: rwoodard@goldeneye.water.ca.go
To: Howe, Carol; Carol Howe

Mail*Link»

Resend of my earlier comments on the CalFed

>Date: Fri, 18 Apr 1997 16:02:02 -0700 (PDT)
>From: Chris Foe <chrisf@bptcpl.swrcb.ca.gov>
>Subject: Resend of my earlier comments on the CalFed water quality issues
(fwd)
>To: cdarling@water.ca.gov, rwoodard@water.ca.gov
>X-MIME-Autoconverted: from QUOTED-PRINTABLE to 8bit by
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>
>Rick, Cindy FYI Chris

>
>----- Forwarded message -----
>Date: Thu, 17 Apr 1997 20:41:34 -0400 (EDT)

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>Subject: Resend of my earlier comments on the CalFed water quality issues

>
>Chris, Presented below is a resend of the the initial set of comments that
I
>sent you earlier this week on the CalFed water quality program development
>issues. I understand that you and I presume others recieved my second
>message. Fred

>
>_G. Fred Lee & Associates

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>
>Via email

>
>April 13, 1997

>
>Chris Foe et al.

●CVRWQCB

APR 17

>Dear Chris,

>

>In response to your questions concerning how CALFED should address water quality issues, as you may recall since January I have been an active participant in the CALFED Water Quality Task Group where I have been trying to get CALFED to focus the resources available on real water quality issues.

> I am still actively pursuing this approach, however, it is unclear as to whether I am going to be successful.

>

>One of the basic problems with CALFED is that the Water Quality Task Group focused on defining water quality problems based on an exceedance of US EPA water quality criteria without properly evaluating whether the exceedance was

>an administrative exceedance related to how the US EPA water quality criteria

>are implemented into state standards (objectives) or whether the exceedance represented a real water quality use impairment which CALFED should utilize its resources to address. I am familiar with the technical basis for the current US EPA water quality criteria as a result of being an invited peer reviewer for the Agency in formulating the criteria development approach and

>for several of the criterion documents. Recently in one of the Task Group subcommittee meetings there was considerable discussion about what, I believe, most of the participants agreed was the inappropriate approach being

>proposed by CALFED to define water quality problems. It remains to be seen how these discussions will influence CALFED's originally developed approach for incorporating water quality into its management programs.

>The most important issue that must be addressed is to change the focus from chemical constituents to real water quality issues of concern to the public.

> The Cache Creek mercury situation is a good example of this problem. Under

>conditions where limited funds are available, public funds should not be spent in a crash massive public works program trying to control all mercury input to the Delta. There are not enough funds to do this. Therefore, there

>is need to incorporate ecological and public health risk assessment into assigning priorities for funding of projects.

>

>The first step is to properly incorporate aquatic chemistry into the risk assessment. Mercury exists in a variety of forms, only some of which are convertible to methyl mercury. Based on your study group's discussions involving a group of experts, the bulk of the mercury that is transported into the Delta each year, which appears to be in a cinibar form, does not convert to methyl mercury. There seems to be some support for the position that only a particular fraction of the mercury that is associated with hydrous metal oxides is the form that is most likely the source of methyl mercury. Before any public works program designed to control mercury is undertaken, CALFED must fund the studies needed to define what forms of mercury from the various sources convert to methyl mercury that bioaccumulates to excessive levels in Delta and Bay fish.

>Of equal importance is the situation with respect to determining whether

>there is a real public health problem today due to excessive accumulation of
>mercury in Delta fish. While I understand that there is some old data that
>indicates this was a problem at one time, I also understand that there is
>a
>urgent need for data on the mercury content of various types of fish that
>are
>used as human food from within the Delta. I also understand that CALFED
>did
>not fund the proposal that the CVRWQCB submitted to determine whether fish
>within the Delta have excessive mercury. If this is the case then CALFED
>is
>misdirecting its resources. 11
>
>The situation with mercury is typical with most of the chemicals that
>CALFED
>has listed as constituents of concern such as other heavy metals,
>organophosphorus pesticides, etc. I believe that I am familiar with
>current
>water quality data and current water quality problem definition in the
>Delta.
> I have been following this closely over the past eight years. The
>situation
>today is that there is a very poor understanding of the real water quality
>problems in the Delta as they may affect some public health (mercury in
>fish)
>and essentially all ecological issues. While there are a number of
>regulated
>chemical constituents present in Delta waters above US EPA criteria, the
>characteristics of Delta waters is such that it is highly unlikely that
>heavy
>metals other than mercury cause real water quality problems - use
>impairments
>in the Delta.
>
>The first step with respect to developing a technically valid, cost
>effective
>water quality management program for water quality issues is for CALFED to
>devote significant financial resources to defining what real water quality
>use impairments are occurring within the Delta or that occur in the Delta
>watershed that influence the aquatic and terrestrial resources of the
>Delta.
> At various CALFED Water Quality Task Group meetings it has been repeatedly
>stressed that the purpose of the CALFED program is to "fix" the Delta water
>quality problems. In order to fix something, it has to be broken. While
>there are some well defined domestic water supply problems associated with
>the export of Delta waters for domestic water supply use related to
>trihalomethane formation, there is a poor understanding of the other real
>water quality problems associated with the Delta. There is sufficient
>understanding, however, to know that the current approach proposed by
>CALFED
>of assuming that exceedance of a US EPA water quality criterion is an
>appropriate definition of a Delta water quality problem is technically
>invalid.

Sam Louma's discussion in response to your request for comments is on

target

>with respect to discussing the deficiencies in item 1. I fully agree that,

>"The statement of 'Reduction of...' implies that we know exactly what the problem is and how to fix it and all that is necessary is a 'project' to do the fix. If these statement are carried forward they will leave the public with the naive impression that the water quality problems are simple, there is a clear perpetrator to blame (and we know who that is), and inaction has been the only reason the problems have not been fixed. In fact, we do not adequately understand the significance of some of these problems, we do not always know the cause where the problems are significant, and we certainly do

>not know the fix (the simple "just quite discharging it" fix is rarely a feasible option; nor will it withstand careful public scrutiny)."

>I have been trying for several months to get the Delta Water Quality Task Group to more reliably address the urban area and industrial stormwater runoff issues than has been done thus far. Last December, the CALFED management and advisors formulated a stormwater runoff management program which failed to properly define a real water quality use impairment within the Delta due to urban area and highway stormwater runoff to Delta tributaries. The CALFED "fix" program involved constructing detention basins

>for the control of urban area stormwater runoff constituents (particulates) that are present in urban area stormwater runoff. I provided CALFED management with a detailed discussion as to why this approach was technically

>invalid and strongly contrary to what is known about the water quality impacts of urban area and highway stormwater runoff pointing out that if there are problems due to the constituents in the runoff they are most likely

>due to non-particulate forms, i.e. those which will pass through a detention

>basin. I found in the last revisions of the CALFED program for urban area runoff water quality management that the earlier adopted technically invalid

>approaches are persisting. CALFED should stop this brute force, mechanical,

>1960s level approach toward defining water quality problems and incorporate a

>1990 level of understanding of aquatic chemistry, aquatic toxicology and water quality in first defining what real water quality problems exist in the

>Delta, what are the cause of these problems, what is their significance to the beneficial uses of the Delta in the broadest sense and for those problems

>that are found to be significant with respect to impairing the public's interest, define the sources of the constituents specifically responsible for

>the use impairment. As I indicated at a recent CALFED Water Quality Task Force subcommittee meeting, this cannot be done by assuming that the real water quality use impairment problems are defined by the exceedance of a US EPA water quality criterion for a regulated constituent such as copper in Delta waters.

Therefore, in order to address item 1 in Cindy Darling's list for defining

>water quality subject areas, CALFED must initiate a comprehensive, reliable
>program specifically designed to address what pollutant inputs to the Delta
>waters are causing significant water quality - ecological adverse impacts
>on

Delta resources. To the extent there is interest I would be happy to assist

>in this effort. I am concerned about C. Darling's item 1 as it is outlined.

> It appears that it could lead to a massive CALFED bureaucracy that accomplishes little in the way of defining the real water quality issues that

>must be defined to fix whatever is "broken" in the Delta related to chemical

>constituent input.

>With respect to C. Darling's item 2 where it is stated that the focus is on the reduction of several pesticides entering the Delta, this is an area I have been following closely for a number of years. While there are potentially significant toxic pulses of several organophosphorus pesticides passing through the Delta each spring, there is no understanding at this point of the ecological significance of these pulses. They are in the direction of being adverse to the beneficial uses of the Delta. The basic problem, however, is that the toxicity is apparently restricted to a limited

>number of types of organisms. Before any control program is established for

>significant reduction of pesticide input, which based on my assessment means

>a significant curtailment of use of pesticides that are needed by agricultural and urban interests, there is need to define the real water quality use impairments associated with organophosphorus pesticides and for that matter other pesticides present in Delta waters and the Delta tributaries.

>As you know, I have a major project of this type underway in Orange County, California in cooperation with the Santa Ana Regional Water Quality Control

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